Appl. No. 10/550,344
Amendment and/or Response
Reply to final Office action of May 8, 2008

Reply under 37 CFR § 1.116-Expedited Procedure
Page 2 of 9

Amendments to the Claims:

A clean version of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR § 1.121(c)(3). This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently amended) A medical imaging system comprising:

acquisition means ~~2 intended to acquire~~ for acquiring a volume of ~~3D~~ three-dimensional (3D) digital data ~~3DV~~ comprising at least one object of interest ~~1~~;

means [[4]] for segmenting a region of interest comprising said object of interest [[1]] within said volume ~~3DV,~~ of 3D data into a segmented region of interest;

means [[3]] for displaying a ~~2D~~ two-dimensional (2D) representation ~~2DR~~ of said volume ~~3DV~~ of 3D data and said segmented region of interest ~~RS~~;

means [[5]] for ~~calculating~~ determining a sub-regions map ~~CSR₁, CSR~~ within said segmented region of interest [[,]]; and

correction means ~~6 intended to exclude sub-regions from~~ for correcting the segmented said region of interest ~~by means of~~ using said sub-regions map ~~CSR₁, CSR~~.

2. (Currently amended) ~~A~~ The medical imaging system as claimed in Claim 1, ~~characterized in that~~ wherein said means [[5]] for ~~calculating a~~ determining the sub-regions map comprise ~~sub-means 11~~ means for calculating watersheds ~~intended~~ to form a first sub-regions map ~~CSR₁~~ within the segmented region of interest ~~RS~~.

3. (Currently amended) ~~A~~ The medical imaging system as claimed in Claim 2, ~~characterized in that~~ wherein said means [[5]] for ~~calculating a~~ determining the sub-regions map further comprise ~~sub-means 10~~ means for calculating a map of distances ~~CD~~, said ~~sub-means 11~~ means for calculating watersheds ~~being intended to form~~ forming the first sub-regions map ~~CSR₁ from~~ based on said map of distances ~~CD~~.

Appl. No. 10/550,344   Reply under 37 CFR § 1.116-Expedited Procedure
Amendment and/or Response   Page 3 of 9
Reply to final Office action of May 8, 2008

4. (Currently amended) A ~~The~~ medical imaging system as claimed in Claim 2, ~~characterized in that~~ wherein said means for ~~calculating a~~ determining the sub-regions map [[5]] further comprise ~~merging sub-means 12 intended to merge~~ means for merging sub-regions of the first map ~~CSR₁ in order~~ to form a second sub-regions map ~~CSR~~.

5. (Previously Presented) A ~~The~~ medical imaging system as claimed in Claim 1, further comprising:
~~characterized in that it comprises~~ control means [[7]] for enabling a user to select the sub-regions to be excluded.

6. (Currently amended) A ~~The~~ medical imaging system as claimed in Claim 1, ~~characterized in that~~ wherein said ~~system is able to update said~~ means for displaying the 2D representation display updates which ~~in order to~~ take into account the ~~effects of~~ corrected segmented region of interest provided by the correction means.

7. (Currently amended) A ~~The~~ medical imaging system as claimed in Claim 1, further comprising:
labeling means [[8]] for labeling the sub-regions map ~~CSR₁, CSR~~ of the segmented region of interest ~~RS~~.

8. (Currently amended) A device for correcting a segmented region ~~RS, intended~~ configured to be integrated in a medical imaging system ~~intended to acquire~~ which acquires a volume of data and to segment a region of interest around an object of interest [[1]] within said volume of data, said device comprising:
means [[5]] for calculating a sub-regions map ~~CSR₁, CSR~~ within the segmented region ~~RS,~~; and
~~collection~~ correction means ~~6 intended to exclude~~ for excluding sub-regions of said region of interest ~~RS by means of~~ based on said sub-regions map.

Appl. No. 10/550,344
Amendment and/or Response
Reply to final Office action of May 8, 2008

Reply under 37 CFR § 1.116-Expedited Procedure
Page 4 of 9

9. (Currently amended) ~~A~~ The medical imaging ~~apparatus~~ as claimed in Claim 1, further comprising:

a medical imager comprising means ~~22~~ for forming [[a]] the volume of 3D digital data representing an environment including ~~an~~ the object of interest ~~1, a medical imaging system 20as claimed in Claim 1~~.

10. (Currently amended) A method of correcting a segmented region of interest derived from a volume of three-dimensional (3D) digital data comprising at least one object of interest, the method comprising:

~~a step of~~ calculating a regions map ~~CSR₁, CSR~~ within the segmented region ~~RS₂; and~~

~~a correction step intended to exclude~~ excluding sub-regions of the segmented region ~~RS by means of~~ based on the sub-regions map ~~CSR₁, CSR~~.

11. (Canceled)